

**OFFICIAL**PATENT  
Docket No. 49933US031IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): HOOPMAN et al. )  
Serial No.: 09/520,032 )  
Confirmation No.: 9385 )  
Filed: 6 March 2000 )  
For: TOOLS TO MANUFACTURE ABRASIVE ARTICLES )

Group Art Unit: 1722  
Examiner: J. Leyson

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**GROUP 1700***32/*  
*AKO*  
*3/26/03*REPLY BRIEF UNDER 37 C.F.R. § 1.193(b)(1)

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Appellants present this Reply Brief in response to the Examiner's Answer dated 14 January 2003 and in support of the appeal from the final rejections of claims 17, 20, 21, 25-28, 33-54, 94-96, and 98-111 of the above-identified application under 35 U.S.C. § 102 (claims 20, 21, 25-28, 33, 34, 36-45, 47-54, 94-96, 98, 99, 101-106, and 108-111) and 35 U.S.C. § 103 (claims 17, 20, 21, 25-28, 33-54, 94-96, and 98-111), as set forth in the Final Office Action mailed January 25, 2002. Appellants incorporate by reference their Appeal Briefs dated 25 June 2002 and 10 October 2002.

Response to Examiner's ArgumentsII. RELATED APPEALS AND INTERFERENCES

Although the Examiner stated that the continuation (Serial No. 09/955,604) of the present application is currently on appeal to the Board of Patent Appeals and Interferences, Appellants note that in the continuation application a Notice of Appeal and an Appeal Brief have been filed, an Examiner's Answer has been received, and a Reply Brief is being filed on even date herewith.

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#### **VI. ISSUE(S) PRESENTED FOR REVIEW**

As noted in the Appeal Brief, Appellants appeal the following four issues:

1. Whether claims 25-28 and 94-96 are anticipated under 35 U.S.C. § 102(b) by U.S. Patent No. 3,312,583 (Rochlis '583).
2. Whether claims 20, 21, 33, 34, 36-45, 47-54, 98, 99, 101-106, and 108-111 are anticipated under 35 U.S.C. § 102(b) by U.S. Patent No. 3,312,583 (Rochlis '583).
3. Whether claims 17, 20, 21, 33-54, and 98-111 are obvious under 35 U.S.C. § 103 over U.S. Patent No. 3,312,583 (Rochlis '583).
4. Whether claims 17, 20, 21, 25-28, 33-54, 94-96, and 98-111 are obvious under 35 U.S.C. § 103 over U.S. Patent No. 3,312,583 (Rochlis '583).

Appellants do not wish to appeal the provisional obviousness-type double patenting rejection of the claims over the continuation (Serial No. 09/955,604) of the present application in view of Rochlis '583. In fact, in the Appeal Brief Appellants acknowledged the pending provisional obviousness-type double patent rejection over copending Application No. 09/955,604 and stated that, after patentability of the instant invention is confirmed, a Terminal Disclaimer will be filed if such a rejection is maintained. This is not an admission that a Terminal Disclaimer is necessary; rather, Appellants will make such a submission merely to expedite prosecution.

#### **VIII. ARGUMENT**

Appellants continue to traverse each of the rejections and disagree with the Examiner's position and assertions.

##### **A. Claims 20, 21, 25-28, 33, 34, 36-45, 47-54, 94-96, 98, 99, 101-106, and 108-111 are not anticipated under 35 U.S.C. § 102(b) by Rochlis '583.**

Appellants traverse the Examiner's continued rejection of these claims under 35 U.S.C. § 102(b) over Rochlis '583. Specifically, Appellants would like to make the following additional points and address certain Examiner's statements.

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Each of Appellants' independent claims recites a production tool for manufacturing an abrasive article, wherein the production tool has a plurality of cavities, each of which has a single opening. Appellants' claims recite that each cavity has a single opening. According to the Random House College Dictionary, "single" is defined as "one only; only one in number" (copy attached).

In contrast, the mold disclosed in Rochlis '583 requires a laminate construction with multiple openings (i.e., openings between the layers in addition to the opening through which mold material enters the cavity) (col. 3, lines 40-49). Specifically, these openings between the mating surfaces of the laminations allow that "air or gas evolved in the molding or hardening procedure may escape" (col. 13, lines 70-73). There is no disclosure in Rochlis '583, however, that any cavity, let alone each of the cavities, has only a single opening. That is, there is no disclosure that Rochlis '583 has laminated mold constructions without openings between the mating surfaces of the laminations. Furthermore, there is no disclosure that Rochlis '583 has mold constructions with a single opening.

In response to the Examiner's statement at page 13 of the Examiner's Answer that Rochlis '583 does not disclose that allowing air or gas to escape is critical or required for the operation of the apparatus, Appellants disagree. At column 14, lines 19-26, Rochlis '583 states that allowing air and gas to escape is an "important aspect" of the invention and that no gas can accumulate in "any embodiment":

An important aspect of the present invention, in regard to method and apparatus, resides in the fact that the assembly of a lamination of notched mold plates permits air or other gas to escape during the molding and setting operation. Thus, there is no possibility of such gas accumulation tending to mar the individual outlines of the pile elements or components, in any embodiment of the product (emphasis added).

Furthermore, Appellants respectfully submit that it is inappropriate for the Examiner to allege that a positive teaching of embodiments with a single opening results from the use of the phrase "most embodiments" in the context of permitting air or gas to escape

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(column 3, lines 40-46 of Rochlis) and the term "may" in the context of air or gas escaping (column 13, lines 70-75). That is, it is inappropriate for the Examiner to take these statements out of context and necessarily interpret them to mean that "in the embodiments (in opposition to 'most embodiments') where there are no openings to permit air or other evolved gas to escape, each cavity has a single opening" (page 11 of Examiner's Answer).

It is respectfully submitted that the entire document must be read for a positive teaching of the "embodiments in opposition to most embodiments." There is no such teaching. Rochlis '583 does not disclose any embodiments of mold constructions that would not be laminated and that would not have openings between the mating surfaces of the laminations. Thus, the Examiner's assertion at page 12 of the Examiner's Answer that Rochlis '583 "is enabling for making a laminated mold or production tool without vent openings which would define each mold cavity with a single opening" must be withdrawn.

Appellants also traverse the assertion that the vent openings are not part of the mold cavities simply because they do "not perform any shaping function" (page 10 of the Examiner's Answer). Rochlis '583 clearly states that the vent openings are provided to prevent entrapment of gas "in the mold cavity in a manner to possibly alter the shape or size of the pile elements" (column 3, lines 47-48). In other words, the vent openings allow gas to escape from the cavities to allow them to fill properly. As a result, any assertion that the vent openings are not located in the cavities is simply not supported by Rochlis '583 and must be withdrawn.

**B. Claims 17, 20, 21, 25-28, 33-54, 94-96, and 98-111 are not obvious under 35 U.S.C. § 103 over Rochlis '583.**

Appellants traverse the Examiner's continued rejection of these claims under 35 U.S.C. § 103 over Rochlis '583. Specifically, Appellants would like to make the following additional points and address certain of the Examiner's statements.

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Rochlis '583 does not explicitly teach or suggest a production tool with any cavity having only a single opening, let alone each of a plurality of cavities having only a single opening.

The Examiner stated at pages 12-13 of the Examiner's Answer that "modifying the production tool of Rochlis (-583) with the alternatives disclosed by Rochlis (-583) has clear motivation since Rochlis (-583) explicitly discloses that the production tool can be modified with such disclosed alternatives." Although it is not entirely clear from the Examiner's Answer, it is believed that these "alternatives" are those that are discussed above – "in the embodiments (in opposition to 'most embodiments') where there are no openings to permit air or other evolved gas to escape, each cavity has a single opening." Again, even in an obviousness rejection, it is inappropriate for the Examiner to make such a definitive inference from the use of the words "most" and "may" instead of depending on the specific disclosure of a description of what those "other" embodiments would be. There is no such disclosure in Rochlis '583. Thus, one of skill in the art would not be motivated to make a mold or production tool for manufacturing an abrasive article with a single opening as a result of the teachings of Rochlis '583 based on the "disclosed alternatives". This rejection must be withdrawn.

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C. Summary

For the reasons provided herein and in the Appeal Briefs dated 25 June 2002 and 10 October 2002, Appellants respectfully submit that pending claims are patentable in view of the cited references. Review and reversal of the rejections are respectfully requested.

Respectfully submitted,

HOOPMAN et al.,

By their attorneys,

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March 12, 2003  
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CERTIFICATE UNDER 37 CFR §1.8:

The undersigned hereby certifies that this paper is being transmitted by facsimile in accordance with 37 CFR §1.6(d) to the Patent and Trademark Office, addressed to Assistant Commissioner for Patents, Washington, D.C. 20231, on this 12<sup>th</sup> day of March, 2003, at 1:53 p.m. (Central Time).

By: Rachel Gagliardi Gebhardt  
Name: Rachel Gagliardi Gebhardt